

REMARKS

I. Status of the Claims

Claims 1 through 12 are pending.
Claims 1 through 12 stand rejected.

II. Amendments

The Specification as been amended to insert a Brief Description of the Drawings and to designate a Detailed Description of the Invention. Support for this amendment is found throughout the specification with particular reference to Fig. 1 and Specification, page 4, the first complete paragraph and the ensuing paragraph.

Claim 1 has been amended to provide antecedent basis to “temperature” as referenced in Claim 3. Support for this amendment is found throughout the specification with particular reference to Specification at page 3, lines 6 and 7. Claim 3 has been amended, *mutatis mutandis* to recite “said temperature.” This amendment is solely to bring the claims it customary USPTO style and for no other reason.

Claims 1 through 11 have been amended. Claim 12 is cancelled. Claim 1 has been amended to more accurately define the invention by incorporating the limitations of dependent Claim 8. All claims have been amended to delete the phrase “characterized in that” and substitute therefore “wherein.” This amendment is solely to bring the claims it customary USPTO style and for no other reason.

Claim 8 is amended to recite an absorption height of 8 to 13mm/10 minutes. Support for this amendment is found throughout the specification with particular reference to Claim 7 as filed.

No new matter has been added.

III. Specification

The Specification has been objected to as failing to present a Brief Description of the Drawings. As amended, this objection is met.

IV. Rejection Under 35 U.S.C. § 112

Claim 3 has been rejected as having indefinite antecedent basis for “the temperature” in line 1.

As Claim 1 has been amended to recite “temperature.” As amended, the rejection of Claim 3 depending from Claim 1 is met.

V. Rejection under 35 U.S.C. § 102

Claims 1 through 4, 6, and 12 stand rejected under 35 U.S.C. § 102 as anticipated by U.S. Pat. No. 5,849,153 to Ishino (“Ishino”). This rejection is respectfully traversed

The Examiner cites Ishino as disclosing the formation of a paper sheet and the printing of a coating layer made of water soluble polymer solution. The Examiner presents the polymer as including polysaccharides and the printing as performed at 90°C, and occurring prior to storage.

A. Applicants’ Claimed Invention

Claim 1 is independent, and Claims 4 through 6 are dependent thereon. Claim 12 has been cancelled.

As amended, Claim 1 is drawn to a process of printing patterned cigarette paper impregnated with fire-inhibiting materials, wherein printing is effected with an aqueous printing solution on a self-supporting paper web wherein the printing solution contains water-soluble polymers and the paper is heated to over 50°C prior to or during the printing operation, wherein the operation of printing on the paper is effected after it has left the paper screen and the press portion of a paper machine but before the paper web is rolled up.

B. The Disclosure of Ishino

Ishino discloses water dispersible sheet comprising a water-resolvable base paper and a water-dispersible coating layer which comprises a water-soluble polymer to reduce the air permeability. Ishino discloses sheets having high water-dispersability to break down in rainwater in natural environment. Ishino further discloses an impregnation treatment of the paper web.

C. The Deficiency of Ishino

Ishino does not disclose fire inhibiting cigarette paper as claimed by Applicants. Ishino does disclose printing on to the cigarette paper. This Ishino does not anticipate claim 1 as amended or claims 2 through 4 and 6 dependent thereon.

VI. Rejections under 35 U.S.C. § 103(a)

Claims 5 and 7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Pat. No. 5,849,153 to Ishino. The Rejection states that “. . . it would have been obvious at the time the invention was made, that the printing solution viscosity and the paper absorption be optimized to obtain the desired product results.” This rejection is respectfully traversed.

A. Applicants' Invention

Dependent claims 5 and 7 are, respectively drawn to a process using a printing solution of a viscosity of a maximum of 4000 mPa · s at 20° C and a process wherein the paper to be printed upon has an absorption height of 6 - 15 mm/10 min.

B. The Teaching of Ishino

Ishino is silent as to *both* viscosity and paper absorption.

C. The Deficiency of Ishino

The proffered idea of optimization to obtain the desired product results is clearly improper hindsight reconstruction of Applicants' invention in the light of Applicants' disclosure. There is no teaching or direction that optimization of either parameter would be useful or that the claimed limitations were the useful permutation. The recent ruling in KSR International Co. v. Teleflex Inc., 82 USPQ2d 1385, 1398 (U.S. 2007) requires that obviousness include a finding that the one of ordinary skill in the art would have seen the benefits of adopting the claimed conditions. Here, as noted, there is no direction that optimization of either parameter would be useful.

Applicants respectfully submit that this rejection is improper and should be withdrawn.

Claims 8 through 11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Pat. No. 5,849,153 Ishino in view of Pat. No. 6,779,530 to Kraker ("Kraker"). This rejection is respectfully traversed.

As to Claim 8, the Examiner cites Ishino as performing the printing step prior to the completion of the process. The Examiner finds obviousness in combining Ishino with KK to provide for storing of the paper product prior to making cigarettes.

As to Claim 9 the Examiner cites KK as disclosing roller backing.

As to Claim 10, the Examiner offers that "entire width of paper is coated." [KK?].

As to Claim 11, reduced ignition is attributed to KK.

A. Applicants' Invention

Claims 8 through 11 depend from Claim 1.

Claim 8 is drawn to paper having an absorption height of 8 – 13mm/10 min.

Claim 10 further requires that during the printing operation the paper web is impregnated over its entire surface area with an aqueous solution.

Claim 11 addresses the coating aqueous solution containing fire-promoting means.

B The Teaching of KK

U.S. patent 6,779,530 (Kraker) shows a process for reducing the permeability of a paper web used in the construction of a smoking article.

C. The Deficiency of II in view of KK

Applicants restate the deficiencies of II as noted above. As such, claim 9 is patentable.

As to Claim 8, as amended and drawn a process involving paper with an absorption height of 8 – 13mm/10 min. KK neither alone nor in combination with II teach or suggest this limitation. And as noted above, there is no reasoning under which optimization or selection of the stated limitation of the absorption parameter would be useful.

As to Claim 10, this claim requires that the entire surface area with an aqueous solution. As the Examiner has observed, KK is drawn to a reduced ignition cigarette paper, and in that

regard, KK necessarily coats only parts of the paper. It would be contraindicated to coat the entire paper in KK. The Examiner suggestion that the partial coating of KK renders obvious the full coating of Claim 10 is improper hindsight reconstruction of Applicants' invention in the light of Applicants' disclosure.

As to Claim 11, Claim 11 addresses the coating aqueous solution containing fire-promoting means. Again, this is the obverse of KK's reduced ignition means.

Not even in the combination of Ishino and Kraker arrives at the claimed invention. Kraker does not teach or suggest impregnating the paper web with a water-dispersible coating layer to produce a fire inhibiting cigarette paper. Ishino does not teach or suggest printing upon the cigarette paper in pattern form to reach a fire-inhibiting paper instead of impregnating the cigarette paper with polymers for the sake of water-dispersability of the cigarette paper. Nether does the combination of II and KK render obvious the invention of Claim 8 having an absorption height of 8 – 13mm/10 min, or of Claim 10 requiring that during the printing operation the paper web is impregnated over its entire surface area with an aqueous solution, or Claim 11 limited to coating with an aqueous solution containing fire-promoting means.

Applicants respectfully request that these rejections be withdrawn.

CONCLUSION

In view of the above, reconsideration and allowance of this application are believed to be in order, and such action is hereby solicited. If any points remain an issue which the Examiner feels may be best resolved through a telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below. The Examiner is invited and encouraged to telephone the undersigned with any concerns in furtherance of the prosecution of the present application.

Please charge any deficiency as well as any other fee(s) which may become due at any time during the pendency of this application, or credit any overpayment of such fee(s) to Deposit Account No. 50-2896.

Respectfully submitted,

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Dated:

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